Claims

1. A composition comprising a selective serotonin reuptake inhibitor (SSRI) and a corticosteroid in amounts that together are sufficient *in vivo* to decrease proinflammatory cytokine secretion or production.

2. The composition of claim 1, wherein said SSRI is cericlamine, citalopram, clovoxamine, cyanodothiepin, dapoxetine, escitalopram, femoxetine, fluoxetine, fluvoxamine, ifoxetine, indalpine, indeloxazine, litoxetine, milnacipran, paroxetine, sertraline, tametraline, viqualine, or zimeldine.

3. The composition of claim 1, wherein said corticosteroid is prednisolone, cortisone, budesonide, dexamethasone, hydrocortisone, methylprednisolone, fluticasone, prednisone, triamcinolone, or diflorasone.

4. The composition of claim 1, wherein said SSRI is fluoxetine or paroxetine and said corticosteroid is prednisolone.

5. The composition of claim 1, wherein said SSRI or said corticosteroid is present in said composition in a low dosage.

6. The composition of claim 1, wherein said SSRI or said corticosteroid is present in said composition in a high dosage.

7. The composition of claim 1, further comprising an NSAID, COX-2 inhibitor, biologic, DMARD, xanthine, anticholinergic compound, beta receptor agonist, bronchodilator, non-steroidal calcineurin inhibitor, vitamin D analog, psoralen, retinoid, and 5-amino salicylic acid.

8. The composition of claim 7, wherein said NSAID is ibuprofen, diclofenac, or naproxen.

9. The composition of claim 7, wherein said COX-2 inhibitor is rofecoxib, celecoxib, valdecoxib, or lumiracoxib.

10. The composition of claim 7, wherein said biologic is adelimumab, etanercept, or infliximab.

11. The composition of claim 7, wherein said DMARD is methotrexate or leflunomide.

12. The composition of claim 7, wherein said xanthine is theophylline.

13. The composition of claim 7, wherein said anticholinergic compound is ipratropium or tiotropium.

14. The composition of claim 7, wherein said beta receptor agonist is ibuterol sulfate, bitolterol mesylate, epinephrine, formoterol fumarate, isoproteronol, levalbuterol hydrochloride, metaproterenol sulfate, pirbuterol scetate, salmeterol xinafoate, or terbutaline.

15. The composition of claim 7, wherein said non-steroidal calcineurin inhibitor is cyclosporine, tacrolimus, pimecrolimus, or ISAtx247.

16. The composition of claim 7, wherein said vitamin D analog is calcipotriene or calcipotriol.

17. The composition of claim 7, wherein said psoralen is methoxsalen.

18. The composition of claim 7, wherein said retinoid is acitretin or tazoretene.

19. The composition of claim 7, wherein said 5-amino salicylic acid is mesalamine, sulfasalazine, balsalazide disodium, or olsalazine sodium.

20. The composition of claim 1, wherein said composition is formulated for topical administration.

21. The composition of claim 1, wherein said composition is formulated for systemic administration.

22. A method of decreasing proinflammatory cytokine secretion or production in a patient, said method comprising administering to the patient an SSRI and a corticosteroid simultaneously or within 14 days of each other in amounts sufficient *in vivo* to decrease proinflammatory cytokine secretion or production in said patient.

23. A method for treating a patient diagnosed with or at risk of developing an immunoinflammatory disorder, said method comprising administering to the patient an SSRI and a corticosteroid simultaneously or within 14 days of each other in amounts sufficient to treat said patient.

24. The method of claim 23, wherein said immunoinflammatory disorder is rheumatoid arthritis, Crohn's disease, ulcerative colitis, asthma, chronic obstructive pulmonary disease, polymylagia rheumatica, giant cell arteritis, systemic lupus erythematosus, atopic dermatitis, multiple sclerosis, myasthenia gravis, psoriasis, ankylosing spondylitis, or psoriatic arthritis.

25. The method of claim 23, wherein said SSRI is cericlamine, citalopram, clovoxamine, cyanodothiepin, dapoxetine, escitalopram, femoxetine, fluoxetine, fluvoxamine, ifoxetine, indalpine, indeloxazine, litoxetine, milnacipran, paroxetine, sertraline, tametraline, viqualine, or zimeldine.

26. The method of claim 23, wherein said corticosteroid is prednisolone, budesonide, cortisone, dexamethasone, hydrocortisone, methylprednisolone, fluticasone, prednisone, triamcinolone, or diflorasone.

27. The method of claim 23, further comprising administering to said patient an NSAID, COX-2 inhibitor, biologic, DMARD, xanthine, anticholinergic compound, beta receptor agonist, bronchodilator, non-steroidal calcineurin inhibitor, vitamin D analog, psoralen, retinoid, and 5-amino salicylic acid.

28. The method of claim 27, wherein said NSAID is ibuprofen, diclofenac, or naproxen.

29. The method of claim 27, wherein said COX-2 inhibitor is rofecoxib, celecoxib, valdecoxib, or lumiracoxib.

30. The method of claim 27, wherein said biologic is adelimumab, etanercept, or infliximab.

31. The method of claim 27, wherein said DMARD is methotrexate or leflunomide.

32. The method of claim 27, wherein said xanthine is theophylline.

33. The method of claim 27, wherein said anticholinergic compound is ipratropium or tiotropium.

34. The method of claim 27, wherein said beta receptor agonist is ibuterol sulfate, bitolterol mesylate, epinephrine, formoterol fumarate, isoproteronol, levalbuterol hydrochloride, metaproterenol sulfate, pirbuterol scetate, salmeterol xinafoate, or terbutaline.

35. The method of claim 27, wherein said non-steroidal calcineurin inhibitor is cyclosporine, tacrolimus, pimecrolimus, or ISAtx247.

36. The method of claim 27, wherein said vitamin D analog is calcipotriene or calcipotriol.

37. The method of claim 27, wherein said psoralen is methoxsalen.

38. The method of claim 27, wherein said retinoid is acitretin or tazoretene.

39. The method of claim 27, wherein said 5-amino salicylic acid is mesalamine, sulfasalazine, balsalazide disodium, or olsalazine sodium.

40. The method of claim 23, wherein said SSRI or said corticosteroid is administered in a low dosage.

41. The method of claim 23, wherein said SSRI or said corticosteroid is administered in a high dosage.

42. The method of claim 23, wherein said SSRI and said corticosteroid are administered within 10 days of each other.

43. The method of claim 42, wherein said SSRI and said corticosteroid are administered within five days of each other.

44. The method of claim 43, wherein said SSRI and said corticosteroid are administered within twenty-four hours of each other.

45. The method of claim 44, wherein said SSRI and said corticosteroid are administered simultaneously.

46. A composition comprising an SSRI and a glucocorticoid receptor modulator in amounts that together are sufficient to decrease proinflammatory cytokine secretion or production.

47. The composition of claim 46, wherein said SSRI is cericlamine, citalopram, clovoxamine, cyanodothiepin, dapoxetine, escitalopram, femoxetine, fluoxetine, fluvoxamine, ifoxetine, indalpine, indeloxazine, litoxetine, milnacipran, paroxetine, sertraline, tametraline, viqualine, or zimeldine.

48. The composition of claim 46, further comprising a compound selected from the group consisting of a NSAID, COX-2 inhibitor, biologic, DMARD, xanthine, anticholinergic compound, beta receptor agonist, bronchodilator, non-steroidal calcineurin inhibitor, vitamin D analog, psoralen, retinoid, and 5-amino salicylic acid.

49. A method of decreasing proinflammatory cytokine secretion or production in a patient, said method comprising administering to a patient an SSRI and a glucocorticoid receptor modulator simultaneously or within 14 days of each other in amounts sufficient *in vivo* to decrease proinflammatory cytokine secretion or production in said patient.

50. A method for treating a patient diagnosed with or at risk of developing an immunoinflammatory disorder, said method comprising administering to the patient an SSRI and a glucocorticoid receptor modulator simultaneously or within 14 days of each other in amounts sufficient to treat said patient.

51. The method of claim 50, wherein said immunoinflammatory disorder is rheumatoid arthritis, Crohn's disease, ulcerative colitis, asthma, chronic obstructive pulmonary disease, polymylagia rheumatica, giant cell arteritis, systemic lupus erythematosus, atopic dermatitis, multiple sclerosis, myasthenia gravis, psoriasis, ankylosing spondylitis, or psoriatic arthritis.

52. The method of claim 50, wherein said SSRI is cericlamine, citalopram, clovoxamine, cyanodothiepin, dapoxetine, escitalopram, femoxetine, fluoxetine, fluvoxamine, ifoxetine, indalpine, indeloxazine, litoxetine, milnacipran, paroxetine, sertraline, tametraline, viqualine, or zimeldine.

53. The method of claim 50, further comprising administering to said patient a COX-2 inhibitor, NSAID, corticosteroid, DMARD, biologic, xanthine, anticholinergic compound, beta receptor agonist, bronchodilator, non-steroidal calcineurin inhibitor, vitamin D analog, psoralen, retinoid, or 5-amino salicylic acid.

54. The method of claim 50, wherein said SSRI and said glucocorticoid receptor modulator are administered within 10 days of each other.

55. The method of claim 54, wherein said SSRI and said glucocorticoid receptor modulator are administered within five days of each other.

56. The method of claim 55, wherein said SSRI and said glucocorticoid receptor modulator are administered within twenty-four hours of each other.

57. The method of claim 56, wherein said SSRI and said glucocorticoid receptor modulator are administered simultaneously.

58. A pharmaceutical composition comprising (i) an SSRI and (ii) a second compound selected from the group consisting of a xanthine, anticholinergic compound, beta receptor agonist, bronchodilator, biologic, NSAID, DMARD, COX-2 inhibitor, non-steroidal calcineurin inhibitor, vitamin D analog, psoralen, retinoid, and 5-amino salicylic acid.

59. The composition of claim 58, wherein said NSAID is ibuprofen, diclofenac, or naproxen.

60. The composition of claim 58, wherein said COX-2 inhibitor is rofecoxib, celecoxib, valdecoxib, or lumiracoxib.

61. The composition of claim 58, wherein said biologic is adelimumab, etanercept, or infliximab.

62. The composition of claim 58, wherein said DMARD is methotrexate or leflunomide.

63. The composition of claim 58, wherein said xanthine is theophylline.

64. The composition of claim 58, wherein said anticholinergic compound is ipratropium or tiotropium.

65. The composition of claim 58, wherein said beta receptor agonist is ibuterol sulfate, bitolterol mesylate, epinephrine, formoterol fumarate, isoproteronol, levalbuterol hydrochloride, metaproterenol sulfate, pirbuterol scetate, salmeterol xinafoate, or terbutaline.

66. The composition of claim 58, wherein said non-steroidal calcineurin inhibitor is cyclosporine, tacrolimus, pimecrolimus, or ISAtx247.

67. The composition of claim 58, wherein said vitamin D analog is calcipotriene or calcipotriol.

68. The composition of claim 58, wherein said psoralen is methoxsalen.

69. The composition of claim 58, wherein said retinoid is acitretin or tazoretene.

70. A method for suppressing secretion of one or more proinflammatory cytokines in a patient in need thereof, said method comprising administering to the patient (i) an SSRI and (ii) a second compound selected from the group consisting of a xanthine, anticholinergic compound, biologic, NSAID, DMARD, COX-2 inhibitor, beta receptor agonist, bronchodilator, non-steroidal calcineurin inhibitor, vitamin D analog, psoralen, retinoid, and 5-amino salicylic acid in amounts sufficient *in vivo* to decrease proinflammatory cytokine secretion or production in said patient.

71. A method for suppressing secretion of one or more proinflammatory cytokines in a patient in need thereof, said method comprising administering to the patient an SSRI in an amount sufficient to suppress secretion of proinflammatory cytokines in said patient.

72. A method for treating a patient diagnosed with an immunoinflammatory disorder, said method comprising administering to the patient an SSRI in an amount and for a duration sufficient to treat said patient.

73. A kit, comprising:

(i) a composition comprising an SSRI and a corticosteroid; and

(ii) instructions for administering said composition to a patient diagnosed with or at risk of developing an immunoinflammatory disorder.

74. A kit, comprising:

(i) an SSRI;

(ii) a corticosteroid; and

(iii) instructions for systemically administering said SSRI and said corticosteroid to a patient diagnosed with or at risk of developing an immunoinflammatory disorder.

75. A kit comprising (i) an SSRI and (ii) instructions for administering said SSRI to a patient diagnosed with an immunoinflammatory disorder.

76. A kit, comprising:

(i) an SSRI;

(ii) a second compound selected from the group consisting of a glucocorticoid receptor modulator, xanthine, anticholinergic compound, biologic, NSAID, DMARD, COX-2 inhibitor, beta receptor agonist, bronchodilator, non-steroidal calcineurin inhibitor, vitamin D analog, psoralen, retinoid, and 5-amino salicylic acid; and

(iii) instructions for administering said SSRI and said second compound to a patient diagnosed with or at risk of developing an immunoinflammatory disorder.

77. A method for identifying combinations of compounds useful for suppressing the secretion of proinflammatory cytokines in a patient in need of such treatment, said method comprising the steps of:

(a) contacting cells *in vitro* with an SSRI and a candidate compound; and

(b) determining whether the combination of said SSRI and said candidate compound reduces cytokine levels in blood cells stimulated to secrete the cytokines relative to cells contacted with said SSRI but not contacted with said candidate compound or cells contacted with said candidate compound but not with said SSRI, wherein a reduction of said cytokine levels identifies said combination as a combination that is useful for treating a patient in need of such treatment.